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ART UNIT	PAPER NUMBER
2187	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/718,419	DURHAM ET AL.
	Examiner	Art Unit	
	Jared I. Rutz	2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>11/20/2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-33</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-33</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>20 December 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>1112005</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-33 as originally filed on 11/20/2003 are pending in the instant

application. Of these there are 5 independent claims and 27 dependent claims.

Information Disclosure Statement

2.   The information disclosure statement (IDS) submitted on 11/20/2003 is in

compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure

statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

4.   **Claims 7, 17, 14, 25, and 33** are rejected under 35 U.S.C. 112, first paragraph,

as failing to comply with the enablement requirement. The claim(s) contains subject

matter which was not described in the specification in such a way as to enable one

skilled in the art to which it pertains, or with which it is most nearly connected, to make

and/or use the invention. These claims each recite the limitation "wherein the requests

are routed to the selected storage cells in identical communication protocols in which

the requests are received by the storage grid manager". Although paragraph 0026

states that the request will typically be routed from storage grid manager 24 using the

same protocol in which it was received by storage grid manager, there is no explanation

of how this is done. Paragraph 0023 shows that requests can be sent using multiple

formats, but there is no mention of these formats being converted before they are sent

to the storage grid manager into a format that can be used to communicate with the

storage grid controllers, and there is no indication that the storage grid controllers can

receive requests in multiple formats.

Claim Rejections - 35 USC § 101

5.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

6.   **Claims 27-33** are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. Program claims must be directed to a

computer readable medium. A program product on a recordable medium includes lines

of code written on a sheet of paper, which is non-statutory. For the purpose of providing

a compact prosecution, claims 27-33 will be treated as if limited to statutory subject

matter for the instant office action.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section

351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   **Claims 1, 2, 6, 8, 9, 13, 15, 16, 18, 27, 28, and 32** are rejected under 35

U.S.C. 102(e) as being anticipated by Leung et al (US 2003/0046270).

9.   **Claim 1** is taught by Leung as:

a.   A computerized system for managing an enterprise storage system,

comprising a storage grid manager for receiving requests for storing files from

users. See data management server (DMS) item 104 of figure 1. Paragraph

0078 discuss conditions in which the DMS decides where to store data, and lines

18-21 show that one such condition is when a user stores a data file in the

storage system.

b.   And for routing the requests to storage grid controllers associated with

selected storage cells of the enterprise storage system where the files will be

stored. Paragraph 0029 lines 1-4 shows that the DMS automates the storing of

data to the available storage devices. Each of the storage devices (item 116 of

figure 1) comprise a storage cell and the associated controller necessary for their

function.

c.   Wherein the selected storage cells are identified based on at least one

predetermined performance parameter. Paragraphs 0049-0055 give examples

of device performance parameters that are used by the DMS to determine the

storage location.

10.   **Claim 2** is taught by Leung as:

d.   The system of claim 1, wherein the storage grid controllers are each

associated with a single storage cell. The storage devices are shown to be

various dedicated storage devices in paragraph 0031.

e.   And wherein the storage grid controllers provide resource availability

information about the storage cells to the storage grid manager. Paragraph 0050

lines 11-14 shows that the DMS dynamically monitors the available capacity

information by examining the actual usage of the storage device.

11.   **Claim 6** is taught by Leung as:

f.   The system of claim 1, wherein the predetermined performance parameter

is selected from the group consisting of a user identity, a storage cost, a user

requirement, a usage pattern, a security requirement, a storage cell availability, a

redundancy requirement and a network optimization requirement. Paragraphs

0050-0055 and 0059-0064 give examples of the parameters the DMS may use to

decide file storage locations. These examples include user identity, storage cost,

user requirements, usage patterns, storage availability, redundancy and network

optimization.

12.   **Claim 8** is taught by Leung as:

g.   A computerized system for managing an enterprise storage system,

comprising: a storage grid manager for receiving requests for storing files from

users. See data management server (DMS) item 104 of figure 1. Paragraph

0078 discuss conditions in which the DMS decides where to store data, and lines

18-21 show that one such condition is when a user stores a data file in the storage system.

h.   And a set of storage grid controllers associated with a set of storage cells of the enterprise storage system. Each of the storage devices (item 116 of figure 1) comprise a storage cell and the associated controller necessary for their function.

i.   Wherein the storage grid manager identifies selected storage cells for storing the files based on at least one predetermined performance parameter. Paragraphs 0049-0055 give examples of device performance parameters that are used by the DMS to determine the storage location.

j.   And routes the requests to the storage grid controllers associated with the selected storage cells. Paragraph 0029 lines 1-4 shows that the DMS automates the storing of data to the available storage devices.

13.   **Claim 9** is taught by Leung as:

k.   The system of claim 8, wherein each of the set of the storage grid controllers are each associated with a single storage cell. The storage devices are shown to be various dedicated storage devices in paragraph 0031.

l.   And wherein the set of storage grid controllers provide resource availability information about the set of storage cells to the storage grid manager. Paragraph 0050 lines 11-14 shows that the DMS dynamically monitors the available capacity information by examining the actual usage of the storage device.

14.   **Claim 13** is taught by Leung as:

m.   The system of claim 9, wherein the predetermined performance parameter

is selected from the group consisting of a user identity, a storage cost, a user

requirement, a desired cell usage pattern, a security requirement, a storage cell

availability, a redundancy requirement and a network optimization requirement.

Paragraphs 0050-0055 and 0059-0064 give examples of the parameters the

DMS may use to decide file storage locations. These examples include user

identity, storage cost, user requirements, usage patterns, storage availability,

redundancy and network optimization.

15.   **Claim 15** is taught by Leung as:

n.   A computer-implemented method for storing files in an enterprise storage

system, comprising: receiving requests on a storage grid manager to store the

files. See data management server (DMS) item 104 of figure 1.

o.   Identifying storage cells of the enterprise storage system for storing the

files based on at least one performance parameter. Paragraphs 0049-0055 give

examples of device performance parameters that are used by the DMS to

determine the storage location.

p.   Routing the requests from the storage grid manager to storage grid

controllers associated with the storage cells. Paragraph 0029 lines 1-4 shows

that the DMS automates the storing of data to the available storage devices.

q.   And storing the files in the storage cells. Paragraph 0029 lines 1-4 shows

that the DMS automates the storing of data to the available storage devices.

16.   **Claim 16** is taught by Leung as:

r.   The method of claim 15, wherein the at least one performance parameter

is selected from the group consisting of a user identity, a storage cost, a user

requirement, a desired cell usage pattern, a security requirement, a storage cell

availability, a redundancy requirement and a network optimization requirement.

Paragraphs 0050-0055 and 0059-0064 give examples of the parameters the

DMS may use to decide file storage locations. These examples include user

identity, storage cost, user requirements, usage patterns, storage availability,

redundancy and network optimization.

17.   **Claim 18** is taught by Leung as:

s.   The method of claim 15, further comprising the storage grid controllers

providing resource availability information about the set of storage cells to the

storage grid manager, prior to the identifying step. Paragraph 0050 lines 11-14

shows that the DMS dynamically monitors the available capacity information by

examining the actual usage of the storage device.

18.   **Claim 27** is taught by Leung as:

t.   A program product stored on a recordable medium for managing an

enterprise storage system, which when executed, comprises a storage grid

manager for receiving requests for storing files from users. See data

management server (DMS) item 104 of figure 1.

u.   And for routing the requests to storage grid controllers associated with

selected storage cells of the enterprise storage system where the files will be

stored. Paragraph 0029 lines 1-4 shows that the DMS automates the storing of data to the available storage devices. Each of the storage devices (item 116 of figure 1) comprise a storage cell and the associated controller necessary for their function.

v.   Wherein the selected storage cells are identified based on at least one predetermined performance parameter. Paragraphs 0049-0055 give examples of device performance parameters that are used by the DMS to determine the storage location.

19.   **Claim 28** is taught by Leung as:

w.   The program product of claim 27, wherein the storage grid controllers are each associated with a single storage cell. The storage devices are shown to be various dedicated storage devices in paragraph 0031.

x.   And wherein the storage grid controllers provide resource availability information about the storage cells to the storage grid manager. Paragraph 0050 lines 11-14 shows that the DMS dynamically monitors the available capacity information by examining the actual usage of the storage device.

20.   **Claim 32** is taught by Leung as:

y.   The program product of claim 27, wherein the predetermined performance parameter is selected from the group consisting of a user identity, a storage cost, a user requirement, a desired cell usage pattern, a security requirement, a storage cell availability, a redundancy requirement and a network optimization requirement. Paragraphs 0050-0055 and 0059-0064 give examples of the

parameters the DMS may use to decide file storage locations. These examples

include user identity, storage cost, user requirements, usage patterns, storage

availability, redundancy and network optimization.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

22. **Claims 4-5, 11-12, 20-21, 22-24, and 30-31** are rejected under 35 U.S.C. 103(a)

as being unpatentable over Leung et al (cited supra) in view of Microsoft Windows NT

Server Administrator's Bible: Option Pack Edition (found at

http://www.windowsitlibrary.com/content/405/25/1.html).

23. **Claim 4** is taught by Leung as shown supra with respect to claim 1.

24. Leung does not explicitly teach the use of a mapping between files and their

storage location to allow the retrieval of the stored files.

25. The Microsoft Windows NT Server Administrator's Bible: Option Pack teaches:

z. Wherein the storage grid manager further maintains a mapping that

associates the files with the selected storage cells in which the files are stored.

The 9th paragraph of page 2 shows that clients connect the server containing a

Dfs tree, which stores a file system directory that associates stored files with their

storage location.

26.   Leung and the Microsoft Windows NT Server Administrator's Bible: Option Pack

are analogous art because they are from the same field of endeavor, the design of

distributed storage systems.

27.   At the time of the invention it would have been obvious to one of ordinary skill in

the art to store a tree representing the locations of stored files on the server that users

contact to store files.

28.   The motivation for doing so would have been to allow users to retrieve their

stored files, even if they had been moved by the DMS.

29.   Therefore it would have been obvious to one of ordinary skill in the art to

combine The Microsoft Windows NT Server Administrator's Bible: Option Pack with

Leung for the benefit of allowing users to retrieve their stored files to obtain the

invention as specified in **claims 4-5.**

30.   **Claim 5** is taught by the Microsoft Windows NT Server Administrator's Bible:

Option Pack as:

>   aa.   The system of claim 4, wherein the storage grid manager further receives
>
>   requests to retrieve the files from the users, and wherein the storage grid
>
>   manager consults the mapping to identify the selected storage cells and retrieve
>
>   the files. The 9th paragraph of page 2 shows that clients connect the server
>
>   containing a Dfs tree, which stores a file system directory that associates stored
>
>   files with their storage location

31.   **Claim 11** is taught by Leung as shown supra with respect to claim 8.

32.   Leung does not explicitly teach the use of a mapping between files and their

storage location to allow the retrieval of the stored files.

33.   The Microsoft Windows NT Server Administrator's Bible: Option Pack teaches:

    bb.   Wherein the storage grid manager further maintains a mapping that

    associates the files with the selected storage cells in which the files are stored.

    The 9th paragraph of page 2 shows that clients connect the server containing a

    Dfs tree, which stores a file system directory that associates stored files with their

    storage location.

34.   Leung and the Microsoft Windows NT Server Administrator's Bible: Option Pack

are analogous art because they are from the same field of endeavor, the design of

distributed storage systems.

35.   At the time of the invention it would have been obvious to one of ordinary skill in

the art to store a tree representing the locations of stored files on the server that users

contact to store files.

36.   The motivation for doing so would have been to allow users to retrieve their

stored files, even if they had been moved by the DMS.

37.   Therefore it would have been obvious to one of ordinary skill in the art to

combine The Microsoft Windows NT Server Administrator's Bible: Option Pack with

Leung for the benefit of allowing users to retrieve their stored files to obtain the

invention as specified in **claims 11-12.**

38.   **Claim 12** is taught by the Microsoft Windows NT Server Administrator's Bible:

Option Pack as:

cc.   The system of claim 11, wherein the storage grid manager further receives

requests to retrieve the files from the users, and wherein the storage grid

manager consults the mapping to identify the selected storage cells and retrieve

the files. The 9th paragraph of page 2 shows that clients connect the server

containing a Dfs tree, which stores a file system directory that associates stored

files with their storage location.

39.   **Claim 20** is taught by Leung as shown supra with respect to claim 15.

40.   Leung does not explicitly teach the use of a mapping between files and their

storage location to allow the retrieval of the stored files.

41.   The Microsoft Windows NT Server Administrator's Bible: Option Pack teaches:

dd.   Further comprising the storage grid manager maintaining a mapping that

associates the files with the storage cells in which the files are stored, after the

storing step. The 9th paragraph of page 2 shows that clients connect the server

containing a Dfs tree, which stores a file system directory that associates stored

files with their storage location. The mapping must be maintained after the

storing step to allow the users to locate their files after they are stored.

42.   Leung and the Microsoft Windows NT Server Administrator's Bible: Option Pack

are analogous art because they are from the same field of endeavor, the design of

distributed storage systems.

43.   At the time of the invention it would have been obvious to one of ordinary skill in the art to store a tree representing the locations of stored files on the server that users contact to store files.

44.   The motivation for doing so would have been to allow users to retrieve their stored files, even if they had been moved by the DMS.

45.   Therefore it would have been obvious to one of ordinary skill in the art to combine The Microsoft Windows NT Server Administrator's Bible: Option Pack with Leung for the benefit of allowing users to retrieve their stored files to obtain the invention as specified in **claims 20-21.**

46.   **Claim 21** is taught by the Microsoft Windows NT Server Administrator's Bible: Option Pack as:

>   ee.   The method of claim 20, further comprising retrieving the files from the appropriate storage cells with the following steps: receiving requests on the storage grid manager to retrieve the files; consulting the mapping to identify the storage cells; and retrieving the files from the storage cells. The 9th paragraph of page 2 shows that clients connect the server containing a Dfs tree, which stores a file system directory that associates stored files with their storage location

47.   **Claim 22** is taught by Leung as shown supra with respect to claim 1. The same DMS that routes the files to the storage locations would also retrieve the files in a similar manner.

48.   Leung does not explicitly teach the use of a mapping between files and their

storage location to allow the retrieval of the stored files.

49.   The Microsoft Windows NT Server Administrator's Bible: Option Pack teaches:

　　　　ff.   Receiving requests on a storage grid manager to retrieve the files;

　　　　identifying storage cells of the enterprise storage system in which the files are

　　　　stored based a mapping;   The 9th paragraph of page 2 shows that clients

　　　　connect the server containing a Dfs tree, which stores a file system directory that

　　　　associates stored files with their storage location.

50.   Leung and the Microsoft Windows NT Server Administrator's Bible: Option Pack

are analogous art because they are from the same field of endeavor, the design of

distributed storage systems.

51.   At the time of the invention it would have been obvious to one of ordinary skill in

the art to store a tree representing the locations of stored files on the server that users

contact to store files.

52.   The motivation for doing so would have been to allow users to retrieve their

stored files, even if they had been moved by the DMS.

53.   Therefore it would have been obvious to one of ordinary skill in the art to

combine The Microsoft Windows NT Server Administrator's Bible: Option Pack with

Leung for the benefit of allowing users to retrieve their stored files to obtain the

invention as specified in **claims 30-31.**

54.   **Claim 23** is taught by the Leung as:

gg.   The method of claim 22, further comprising storing the files, prior to the

receiving step, with the following steps: receiving requests on the storage grid

manager to store the files. See data management server (DMS) item 104 of

figure 1. Paragraph 0078 discuss conditions in which the DMS decides where to

store data, and lines 18-21 show that one such condition is when a user stores a

data file in the storage system.

hh.   Identifying storage cells of the enterprise storage system for storing the

files based on at least one performance parameter. Paragraphs 0049-0055 give

examples of device performance parameters that are used by the DMS to

determine the storage location.

ii.   Routing the requests to store the files from the storage grid manager to

storage grid controllers associated with the storage cells, and storing the files in

the storage cells. . Paragraph 0029 lines 1-4 shows that the DMS automates

the storing of data to the available storage devices.

55.   **Claim 24** is taught by Leung as:

jj.   The method of claim 23, wherein the at least one performance parameter

is selected from the group consisting of a user identity, a storage cost, a user

requirement, a desired cell usage pattern, a security requirement, a storage cell

availability, a redundancy requirement and a network optimization requirement.

Paragraphs 0050-0055 and 0059-0064 give examples of the parameters the

DMS may use to decide file storage locations. These examples include user

identity, storage cost, user requirements, usage patterns, storage availability,

redundancy and network optimization.

56.   **Claim 30** is taught by Leung as shown supra with respect to claim 8.

57.   Leung does not explicitly teach the use of a mapping between files and their

storage location to allow the retrieval of the stored files.

58.   The Microsoft Windows NT Server Administrator's Bible: Option Pack teaches:

kk.   Wherein the storage grid manager further maintains a mapping that

associates the files with the selected storage cells in which the files are stored.

The 9th paragraph of page 2 shows that clients connect the server containing a

Dfs tree, which stores a file system directory that associates stored files with their

storage location.

59.   Leung and the Microsoft Windows NT Server Administrator's Bible: Option Pack

are analogous art because they are from the same field of endeavor, the design of

distributed storage systems.

60.   At the time of the invention it would have been obvious to one of ordinary skill in

the art to store a tree representing the locations of stored files on the server that users

contact to store files.

61.   The motivation for doing so would have been to allow users to retrieve their

stored files, even if they had been moved by the DMS.

62.   Therefore it would have been obvious to one of ordinary skill in the art to

combine The Microsoft Windows NT Server Administrator's Bible: Option Pack with

Leung for the benefit of allowing users to retrieve their stored files to obtain the

invention as specified in **claims 30-31.**

63.   **Claim 31** is taught by the Microsoft Windows NT Server Administrator's Bible:

Option Pack as:

>   ll.   The program product of claim 30, wherein the storage grid manager
>
>   further receives requests to retrieve the files from the users, and wherein the
>
>   storage grid manager consults the mapping to identify the selected storage cells
>
>   and retrieve the files. The 9th paragraph of page 2 shows that clients connect the
>
>   server containing a Dfs tree, which stores a file system directory that associates
>
>   stored files with their storage location.

64.   **Claims 3, 10, 19, and 29** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Leung in view of Armitano et al (US 2004/0230795).

65.   **Claim 3** is taught by Leung as shown above with respect to claims 1 and 2.

66.   Leung does not teach the storage devices further enforcing access control

specifications for the storage cells.

67.   Armitano teaches the use of a policy engine with a storage device to allow it to

process access control policies for a storage device (see paragraph 0007). Paragraphs

0024-0027 give examples of the type of access control policies enforced by the policy

engine.

68.   Leung and Armitano are analogous art as they are from the same field of endeavor, the design of data storage devices.

69.   At the time of the invention it would have been obvious to a person of ordinary skill in the art to use a storage device including a policy engine as taught by Armitano as the storage devices in the storage system of Leung.

70.   The motivation for doing so would have been lessening the load on the storage device's CPU by allowing policies to be enforced by a separate device (Armitano paragraph 0017 lines 1-5)

71.   Therefore it would have been obvious to combine Armitano with Leung to obtain the invention as specified in **claim 3**.

72.   **Claim 10** is taught by Leung as shown above with respect to claims 8 and 9.

73.   Leung does not teach the storage devices further enforcing access control specifications for the storage cells.

74.   Armitano teaches the use of a policy engine with a storage device to allow it to process access control policies for a storage device (see paragraph 0007). Paragraphs 0024-0027 give examples of the type of access control policies enforced by the policy engine.

75.   Leung and Armitano are analogous art as they are from the same field of endeavor, the design of data storage devices.

76.   At the time of the invention it would have been obvious to a person of ordinary

skill in the art to use a storage device including a policy engine as taught by Armitano as

the storage devices in the storage system of Leung.

77.   The motivation for doing so would have been lessening the load on the storage

device's CPU by allowing policies to be enforced by a separate device (Armitano

paragraph 0017 lines 1-5)

78.   Therefore it would have been obvious to combine Armitano with Leung to obtain

the invention as specified in **claim 10**.

79.   **Claim 19** is taught by Leung as shown above with respect to claim 15.

80.   Leung does not teach the storage devices further enforcing access control

specifications for the storage cells.

81.   Armitano teaches the use of a policy engine with a storage device to allow it to

process access control policies for a storage device (see paragraph 0007). Paragraphs

0024-0027 give examples of the type of access control policies enforced by the policy

engine.

82.   The policy engine enforces access control before the file is stored in the storage

device (see figure 2, discussed in paragraph 0035).

83.   Leung and Armitano are analogous art as they are from the same field of

endeavor, the design of data storage devices.

84.   At the time of the invention it would have been obvious to a person of ordinary skill in the art to use a storage device including a policy engine as taught by Armitano as the storage devices in the storage system of Leung.

85.   The motivation for doing so would have been lessening the load on the storage device's CPU by allowing policies to be enforced by a separate device (Armitano paragraph 0017 lines 1-5)

Therefore it would have been obvious to combine Armitano with Leung to obtain the invention as specified in **claim 19**.

86.   **Claim 29** is taught by Leung as shown above with respect to claims 27 and 28.

87.   Leung does not teach the storage devices further enforcing access control specifications for the storage cells.

88.   Armitano teaches the use of a policy engine with a storage device to allow it to process access control policies for a storage device (see paragraph 0007). Paragraphs 0024-0027 give examples of the type of access control policies enforced by the policy engine.

89.   Leung and Armitano are analogous art as they are from the same field of endeavor, the design of data storage devices.

90.   At the time of the invention it would have been obvious to a person of ordinary skill in the art to use a storage device including a policy engine as taught by Armitano as the storage devices in the storage system of Leung.

91.   The motivation for doing so would have been lessening the load on the storage

device's CPU by allowing policies to be enforced by a separate device (Armitano

paragraph 0017 lines 1-5)

Therefore it would have been obvious to combine Armitano with Leung to obtain the

invention as specified in **claim 29**.

92.   **Claim 26** is rejected under 35 U.S.C. 103(a) as being unpatentable over Leung

et al (cited supra) in view of Microsoft Windows NT Server Administrator's Bible: Option

Pack Edition (cited supra) and further in view of Armitano (cited supra).

93.   **Claim 26** is taught by Leung in view of the Microsoft Windows NT Server

Administrator's Bible: Option Pack Edition as shown supra with respect to claim 22.

94.   Leung in view of the Microsoft Windows NT Server Administrator's Bible: Option

Pack Edition does not teach the storage devices further enforcing access control

specifications for the storage cells.

95.   Armitano teaches the use of a policy engine with a storage device to allow it to

process access control policies for a storage device (see paragraph 0007). Paragraphs

0024-0027 give examples of the type of access control policies enforced by the policy

engine.

96.   Leung in view of the Microsoft Windows NT Server Administrator's Bible: Option

Pack Edition and Armitano are analogous art as they are from the same field of

endeavor, the design of data storage devices.

97.   At the time of the invention it would have been obvious to a person of ordinary skill in the art to use a storage device including a policy engine as taught by Armitano as the storage devices in the storage system of Leung in view of the Microsoft Windows NT Server Administrator's Bible: Option Pack Edition.

98.   The motivation for doing so would have been lessening the load on the storage device's CPU by allowing policies to be enforced by a separate device (Armitano paragraph 0017 lines 1-5)

99.   Therefore it would have been obvious to combine Armitano with Leung in view of the Microsoft Windows NT Server Administrator's Bible: Option Pack Edition to obtain the invention as specified in **claim 26**.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jared I. Rutz whose telephone number is (571) 272-5535. The examiner can normally be reached on M-F 8:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Jared I Rutz
Examiner
Art Unit 2187

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CHRISTIAN CHACE
PRIMARY EXAMINER